# EMOTIONAL INTELLIGENCE AND ACADEMIC SUCCESS: A CONCEPTUAL ANALYSIS FOR EDUCATIONAL LEADERS\*

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#### Abstract

In this review of the literature, we briefly examined the development of intelligence theories as they lead to the emergence of the concept of emotional intelligence(s). In our analysis, we noted that only limited attention had been focused on the emotional intelligence skills of school administrators. Accordingly, we examined the role of emotional intelligence in improving student achievement. Because principals as educational leaders are responsible for the successful operation of their respective schools, we contend it is important to examine the link between effective leadership skills and practices and student achievement.

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## 1 Sumario en espanol

En esta revisión de la literatura, nosotros revisamos brevemente el desarrollo de teorías de inteligencia como llevan a la salida del concepto de inteligencias emocionales. En nuestro análisis, nosotros notamos que atención sólo limitada había sido centrada en las habilidades emocionales de la inteligencia de administradores de escuela. Por consiguiente, revisamos el papel de la inteligencia emocional a mejorar logro de estudiante. Porque directores como líderes educativos son responsables de la operación exitosa de sus respectivas escuelas, nosotros contendemos que es importante revisar el lazo entre habilidades efectivas de liderazgo y logro de prácticas y estudiante.

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#### 2 Introduction

In this analysis of the extant literature, we focused on the development of intelligence theories, emotional intelligence, leadership and student achievement, transformational leadership and emotional intelligence, transformational leadership and followers' reactions, and emotional intelligence and academic success. A review of the current literature revealed that very little attention has been devoted to the study of the emotional intelligence skills of school administrators. Accordingly, we focused on the role that principals assume in improving student achievement. Because principals as educational leaders are responsible for the successful operation of their respective schools, we contend it is important to examine the link between effective leadership skills and practices and student achievement.

## 3 Development of Intelligence Theories

The search for a deeper understanding of human intelligence began in the early 1900s when Binet started administering intelligence tests to school-age children in France. France had radically changed its philosophy of education by mandating that all children ages six through fourteen attend school. It was Binet's mission to develop a measure that would help determine differences between normal children and the subnormal. Binet's research assistant, Simon, helped him develop a test for measuring intelligence (Binet & Simon, 1915, 1916). By 1911 and two revisions later, the Binet-Simon Intelligence Scales was accepted world-wide because of its ease to administer (Terman, 1916). Then, in 1918, the United States was the first country in the world to administer large scale intelligence testing to its Army recruits (Black, 2003).

Some psychologists began to recognize that non-cognitive aspects to intelligence existed. Among these individuals, Thorndike (1920) theorized three types of intelligence: social, mechanical, and abstract. Thorndike (1920) defined social intelligence as the ability to manage and understand people. When responses occurred prior to a stimulus and satisfying reactions resulted, those responses were more likely to be repeated. However, responses that occurred just prior to frustrating events were more likely to be extinguished. Links between responses and stimuli were reinforced through frequent, recent, and dynamic repetition. Thorndike (1920), in his research, focused on behavior rather than consciousness. As such, his studies constituted the beginning of investigations related to social intelligence.

<sup>&</sup>lt;sup>1</sup> http://www.ncpeapublications.org

Wechsler (1940, 1943) proposed that non-intellective elements were present that were as essential to intelligence as were the cognitive aspects. He suggested that these factors were necessary for predicting a person's capability to be successful in life. Wechsler (1940, 1943) further defined intelligence as the global or composite capacity of an individual to act purposefully, to think rationally, and to deal effectively with the surroundings or situation.

It was not until the 1980s that the work of early pioneers in social intelligence resurfaced. Gardner (1983) wrote about multiple intelligences in his book, Frames of Mind. At that time, he suggested that seven categories of intelligence existed: visual/spatial intelligence, musical intelligence, verbal intelligence, logical/mathematical intelligence, interpersonal intelligence, intelligence, and bodily/kinesthetic intelligence. Of these seven categories, intrapersonal and interpersonal intelligences were considered to be as equally important as the intelligences characteristically measured by IQ and similar tests. Intrapersonal intelligence, described as the aptitude to develop one's own model and use that model successfully in self-management, included achievement, adaptability, emotional self-control, initiative, optimism, and transparency. Interpersonal intelligence, the ability to have social awareness and manage relationships, included being a change catalyst, building bonds, collaboration, conflict management, developing others, empathy, influence, inspirational leadership, organizational awareness, service, and teamwork. Gardner's work (1983, 1993) opened new avenues for investigating human intellectual development.

In 1985, Sternberg, according to his Triarchic Theory, theorized three distinct intelligence types existed: componential, experiential, and contextual. Componential intelligence emphasized effective information processing. Individuals high in this area had the ability to think analytically and critically. Experiential intelligence emphasized the ability to formulate new ideas and insights whereas contextual intelligence emphasized the practical. Individuals high in this area were quickly able to determine the factors that influenced successful completion of tasks. These individuals were astute at molding their environment in order to accomplish goals and, they were able to adapt to new situations. Sternberg (1985), through research and experience, suggested that intelligence was the ability to solve problems and acclimate to new situations and that successful individuals displayed practical intelligence. Practical intelligence, he hypothesized, was a more accurate predictor of success than the traditional intelligence models and testing. As a result of his investigations, non-intellectual factors were perceived as being strong indicators of human success (Sternberg, 1985).

Bar-On (1997) coined the term "EQ" or "Emotional Quotient" which he used to describe his approach toward evaluating general intelligence. He described emotional intelligences as the ability to work successfully with emotions or feelings and how to deal favorably with other individuals. Bar-On (1997) created a scientifically validated inventory of emotional intelligence factors that he called the "Bar-On Emotional Quotient Inventory" (EQ-i). In his instrument, individual's abilities to handle daily challenges could be assessed and personal and professional success could be predicted (Bar- On & Parker, 2000). Bar-On (1997) investigated five identifiable areas of emotional intelligence in his inventory: adaptability, general mood, interpersonal, intrapersonal, and stress management (Mirsky, 1997). In 1996, Multi-Health Systems was the first company to publish an instrument of this type.

Weisinger (2000) defined emotional intelligence as the intelligent use of emotions. As such, he emphasized the significance of learning and making emotions work to improve self and others. He documented and illustrated the effect emotions had in personal settings and work environments (Weisinger, 2000).

# 4 Emotional Intelligence

Salovey and Mayer (1990) coined the term "emotional intelligence" and defined it as "the ability to monitor one's own and others' feelings, to discriminate among them, and to use this information to guide one's thinking and actions" (p. 189). In their model, five specific domains were described. The first domain of self awareness was described as self-observation and recognition of feelings as they occurred. In the second domain of managing emotions, appropriately handling feelings or the realization of what prompted a specific emotion were addressed. Also involved were finding ways to handle anger, anxiety, fear, and sadness. Motivating self comprised the third domain and consisted of self-control, stifling impulses, or delaying gratification. The

fourth domain, empathy, referred to sensitivity toward others' concerns, feelings, or perspective. Handling relationships, the fifth domain, involved managing others' emotions and exercising social competence.

Although the definitions were important, Salovey and Mayer (1990) believed that it was extremely important to distinguish the difference between the actual use and expression of emotions and the content of emotional intelligence in work and life. It was additionally important to correlate emotional learning, both the definition and application, with the facets of intelligence that were defined and studied (Nelson & Low, 1999a). Grewal and Salovey (2005) suggested that the skill development within each domain varied among individuals and accounted for emotional variances in everyday life.

Covey (1990) published his findings related to human performance and emotional intelligence is his book 7 Habits of Highly Effective People: Powerful Lessons in Personal Change. He provided a template for effectiveness in life and work. Each of his seven habits enlisted the identification and development of emotional skills. His first habit, the habit of personal vision, involved exploring and developing one's own emotional skills and having insights into one's own abilities. Covey's second habit, the habit of personal leadership, involved using and understanding emotional competency. The third habit, the habit of personal management, involved improving self management of commitment ethic, drive strength, positive personal change, and time management. In the fourth habit of interpersonal leadership, developing assertion, comfort, decision making, empathy, and leadership skills were emphasized.

Developing the emotional skills of anger control and management, assertion, comfort, empathy, fear control and management, leadership, self-esteem, and stress management were focused upon in the fifth habit of empathic communication. Also involved was the understanding of others' motives. The sixth habit, the habit of creative cooperation, involved exploring and developing emotional intelligence skills for the five competency areas and their associated skills. Further exploration and development of emotional intelligence skills through "sharpening the saw" were promoted in the seventh habit of renewal. Collectively, all seven habits from Covey's model accentuated the significance and relationship of emotional intelligence to human's overall success in life and work (Covey, 1990).

In 1995, Goleman published *Emotional Intelligence*. This ground breaking book was the first book in which the value of emotional intelligence in business and education was discussed. Goleman (1995) identified five emotional and social abilities and skills of emotional intelligence: (a) self awareness or having a realistic assessment of one's own feelings; (b) self regulation or managing emotions appropriately so that they would assist not hinder; (c) motivation or internal inspiration; (d) empathy or the ability to create an awareness of others' feelings; and (e) social skills or the ability to handle others' emotions in a positive manner. Goleman (1998), in his book *Working with Emotional Intelligence*, further described the emotional skills critical to personal and organizational success. He presented examples of how and why emotional intelligence was more important than long-established IQ measurements. Based on personal and social competence, Goleman (1995) developed a framework of emotional competencies. He demonstrated how specific emotional skills were developed and learned (Boyatzis, Coleman, & Rhee, 2000; Goleman, 1998).

Cooper and Sawaf (1997) provided documentation that emotional intelligence was necessary and valued in the leadership of successful businesses. Four key components to emotional intelligence are present in their model: emotional alchemy, emotional depth, emotional fitness, and emotional literacy. These factors provided connection, energy, influence, and information to acknowledge, comprehend, and apply the power of emotional intelligence factors effectively to work situations.

In 1997, Townsend and Gebhardt described the importance of emotional intelligence skills in effective leadership roles. In their book, Five Star Leadership (1997), emotional intelligence served as the core to leadership success in the military. Twenty-five hundred years of military history were analyzed. Leaders knew themselves, influenced those persons around them, and accomplished the goals set before them through the use of emotional intelligence skills.

During the middle to late 1900s, Erikson (1950, 1959) theorized that emotional skills and competencies developed throughout human growth and development. During each of the eight psychosocial stages of development, individuals move freely from one stage to another depending upon the situation. An understanding of each stage helps individuals to understand their emotional health as they meet life's challenges. During each stage, emotional safety is important. The growth and development of the emotional skills during each

stage are critical to achieving success in life and work (Erikson, 1950, 1959).

The evolution of emotional intelligence theories demonstrated people's wish to understand themselves better. It is important to investigate the research regarding the development of emotional intelligence, to build an awareness and understanding regarding the many abilities and skills of emotional intelligence, and to lay the foundation for the link between leadership and its influence on student achievement.

## 5 Leadership and Student Achievement

The role that successful leadership plays in student achievement is often underestimated. The "total (direct and indirect) effects of leadership on student learning accounted for about a quarter of total school effect" (Leithwood, Seashore, Louis, Anderson, & Wahlstrom, 2004, p. 5). This estimate suggested that efforts in improving school leadership would have an impact on student achievement. It seems ironic that in schools with the greatest challenges and difficulties that the impact of successful leaders is greatest. Leithwood et al. (2004) stated that no documented evidence existed of "troubled schools being turned around without intervention by a powerful leader" (p. 5). Many factors contribute to turning around low performing or troubled schools, but it begins with effective leadership.

The qualities that principals possess and the styles of leadership are two factors critical to the effective operation of the school. Effective principals generate optimism, passion, and an atmosphere of trust and cooperation to lead their staff in a manner to motivate students to high levels of academic achievement. Successful leaders envision their role as eliciting the maximum potential from others. To accomplish this task, principals demonstrate the ability to radiate appropriate needs and then move between being directive and non-directive with spontaneous competence.

According to Goleman (2002), effective leaders possess emotional intelligence competencies that allow them to function effectively in numerous situations with a variety of people. The four key emotional intelligence competencies that he attributed to impacting subordinates effectively were: (a) relational management, (b) self-awareness, (c) self-management, and (d) social awareness. He defined relational management as the capacity to build and inspire team cooperation and collaboration. Self-awareness was the ability to examine one's inner self and know how one reacted in various situations. Goleman (2002) defined self-management as having emotional control, adaptability, and optimism. He defined social awareness as being empathetic and having the ability to listen acutely. These competencies are an integral part of the principal's charisma in developing and maintaining a positive academic climate where teachers and students were successful. He also stated that these competencies may be learned and are not innate abilities. Therefore, leaders may become more effective through training.

#### 6 Transformational Leadership and Emotional Intelligence

Studies of the effective leadership qualities emerged well before the term "transformational leadership" was coined. In 1950, the authors of the Ohio State Leadership Studies investigated job performance and satisfaction (Katz, Maccoby, & Morse, 1950). Leadership qualities that significantly impacted attainment of organizational goals were identified in these studies. Two leadership styles emerged: task versus consideration. Task leadership was the degree to which the leader defined the managerial role by the tasks and attainment of the goals for the organization or group. All work was conducted in a business-like manner with the motivation of the workers coming from compliance for pay and control. Consideration was defined as social-emotional leadership which was characterized by the friendliness and supportive mannerisms of the leader toward subordinates. Subordinates were treated with care and social dialogue was present. The motivation for job performance was based on emotional ties and loyalty (Katz et al., 1950).

In 1978, Burns wrote Leadership. He shifted the focus of his research from studying the traits of prominent men to the relationships between leaders and their subordinates. He investigated the qualities of transforming leaders which engaged followers to higher levels of morality and motivation. He defined the transformational leader as an individual who altered, elevated, and shaped goals, motives, and values of the followers while

simultaneously realizing considerable change. The power of this type of leadership was heroic and noble (Burns, 1978).

Transformative leadership, first proposed by Bennis (1989), was defined as "the ability of a person to reach the souls of others in a fashion which raises human consciousness, builds meanings and inspires human intent that is the source of power" (Dillard, 1995, p. 560). Bass (1985) suggested a two-factor leadership theory which included both transformational and transactional leadership factors. These factors, though located on opposite ends of a leadership continuum, were actually complimentary. The transformational side of leadership continuum included goal setting, building a vision, providing professional growth opportunities for self and others, empathy, setting high expectations, modeling high performance, fostering team cooperation, and collaboration. The transactional practices were managerial in nature and contributed to organizational stability which includes community relations, instructional support, monitoring school activities, and staffing needs.

When considering Covey's 7 Habits (1990), Bass (1985) described both the transformational and transactional sides of the transformational leadership style. The habits supporting Bass's transformational side were those habits of personal vision, personal management, interpersonal leadership, empathic communication, creative cooperation, and renewal. Covey's habits which supported Bass's transactional side were those habits of personal leadership, personal management, interpersonal leadership, creative cooperation, and renewal. Three of the habits, personal management, interpersonal leadership, and renewal, were shared between the transformational leadership style and the transactional leadership style.

Mayer, Salovey, and Caruso (1999) analyzed the relationship between leadership effectiveness and emotional intelligence. They determined that emotional intelligence was the main factor to effective leadership. The emotional intelligence of the manager was strongly related to the employees' perceptions of their manager's success. Examination of a relationship between emotional intelligence, performance, and transformational leadership style was investigated by Leban and Zulauf (2004). Through their work, they concluded that a connection existed between the transformational leadership style and emotional intelligence skills. The capacity to understand emotions was significantly related to Bass's (1985) component of inspirational motivation, a component of his transformational leadership model. In their findings, when emotional intelligence skills were strategically implemented, project performance was enhanced.

Palmer, Walls, Burgess, and Stough (2001) explored the relationship between emotional intelligence and effective leadership. They established that several components of transformational leadership were correlated with emotional intelligence. Additionally, they contended that effective leaders' emotional intelligence skills may have accounted for the way subordinates felt at work.

The predictive relationship between transformational leadership style and emotional intelligence was analyzed by Mandell and Pherwani (2003) who demonstrated, through use of a regression analysis, the presence of a relationship between transformational leadership and emotional intelligence (i.e., managerial leadership styles could be predicted using emotional intelligence scores). They also documented that statistically significant differences were not present in the predictive nature of the leadership style between men and women, even though women scored higher than men in emotional intelligence.

Gardner and Stough (2002) compared two respected instruments which measured emotional intelligence to determine if they predicted leadership style. The Swinburne University Emotional Intelligence Test (SUEIT) and Bass's (1985) Multifactor Leadership Questionnaire (MLQ) were used. Analyses suggested a strong relationship was evident between emotional intelligence and transformational leadership style. Gardner and Stough (2002) suggested using emotional intelligence testing in the identification of effective leaders based on their findings that two emotional intelligence skills promoted effective leadership style. These two emotional intelligence skills were the ability to identify one's own emotions and the emotions of others, and the ability to handle one's own negative and positive emotions as well as the negative and positive emotions of others.

Kerr, Garvin, Heaton, and Boyle (2005) investigated the relationship between leadership effectiveness and managers' emotional intelligence levels. Through use of the Salovey Caruso Emotional Intelligence Test, Version 2.0, as a measure of emotional intelligence and an employee rating of supervisor performance inventory, they determined that high emotional intelligence scores predicted highly effective leadership, whereas low emotional intelligence scores foretold weak leadership. Through correlation analyses, they

demonstrated that the presence of strong statistically significant relationships.

According to Yukl (1994) and Leithwood and Jantzi (2000), the transformational leadership style was advocated as one of the fundamental practices that schools targeted for reform initiatives should utilize. This leadership style concentrated on the development of capacity among leaders and their subordinates and aimed at higher levels of leadership commitment to the organizational goals through social-emotional factors. Whether its effect actually enhanced higher student achievement, it did bear exploring. The results of such effort were assumed to produce higher productivity (Bass, 1985; Burns, 1978). It was, therefore, important to consider followers' reactions to the transformational leader.

# 7 Transformational Leadership and Followers' Reactions

From Burns (1978) and Bass (1985), transactional leadership behaviors characterized the leader who provided rewards to subordinates in exchange for effort. In contrast, transformational leadership behaviors motivated their subordinates to "do more than what is expected" because "the followers feel trust and respect toward the leader" (Yukl, 1989, p. 272). Early researchers (e.g., Avolio & Bass, 1988; Bass, 1985; Bass, Avolio, & Goodheim, 1987; Bennis, 1989; Bennis & Nanus, 1985) all "share the common perspective that effective leaders transform or change the basic values, beliefs, and attitudes of followers so that they are willing to perform beyond the minimum levels specified by the organization" (Podsakoff, MacKenzie, Moorman, & Fetter, 1990, p. 108).

Bass (1985) contended that employees express high levels of job satisfaction and performance when their leaders demonstrate transformational leadership behaviors. Similarly, employees performed better, produced more with higher quality, and encountered fewer conflicts while working for charismatic leaders than under more directive leadership (Howell & Frost, 1989). These in-role performances by the leader produced follower satisfaction (Podsakoff et al., 1990).

Although these results were noteworthy, the real spirit of transformational leaders was realized when ordinary people were lifted to extraordinary heights (Boal & Bryson, 1988). Such individuals were compelled to "do more than they were expected to do" (Yukl, 1989, p. 272) so they performed "beyond the level of expectations" (Bass, 1985). The more important effects were in the extra-role performance, not just compliance with leadership directives (Graham, 1988). Kouzes and Posner (1995) suggested that the most valued leadership characteristics by followers were truthfulness, integrity, and honesty. Followers were motivated because they trusted and respected their leaders.

According to Bass and Riggio (2006), the leader serves as a role model whereby "followers identify[ied] with the leader [s] [sic] and want[ed] to emulate them; leaders [were] endowed by their followers as having extraordinary capabilities, persistence, and determination" (p. 6). This model, termed idealized influence, is comprised of two attributes. Both attributes are personified within the leader through trust and respect and by the followers' identification of critical leadership attributes in the leader. Bass and Riggio (2006) also stated that "leaders who have a great deal of idealized influence are willing to take risks and are consistent rather than arbitrary. They were counted on to do the right thing, demonstrating high standards of ethical and moral conduct" (p. 6).

Transformational leaders evoke team spirit and aroused enthusiasm and optimism. Followers become actively involved in pursuing common goals. "Leaders [got] followers involved in envisioning attractive future states; they create[d] clearly communicated expectations that followers want[ed] to meet and also demonstrate[d] commitment to goals and the shared vision" (Bass & Riggio, 2006, p. 6). This process is termed inspirational motivation.

Transformational leaders, through their leadership behaviors, nurture and encourage others to take risks and to become transformational leaders themselves. Eventually, the organizational structure and culture will be filled with transformational leadership at all levels (National Research Council, 1997). The most successful organizations incorporate transformational leaders throughout (Joyce, 1999). Leaders raise levels of confidence in their subordinates and increase awareness of goals (Bass, 1985). Both leaders and followers ultimately raise each other to higher levels of motivation, thereby, promoting organizational success (Burns, 1978).

# 8 Emotional Intelligence and Academic Success

Although school administrators influence the successful operation of the school, it is important to consider how students' emotional intelligence is related to academic success. In one such study, Parker (2002) examined the transition of young adults from high school to postsecondary settings, with respect to their emotional intelligence and academic success. Parker (2002) established that transitioning from high school to the collegiate environment was stressful for young adults. Specific emotional intelligence factors, intrapersonal abilities, interpersonal skills, adaptability, and stress management, led to the academic success of some students and to unsuccessful outcomes for other students. Those first-year students who obtained academic success demonstrated higher emotional intelligence scores in four identified areas and stayed in college. Those first-year students who scored low in the four identified emotional intelligence areas did not return to the college for continued study. Parker (2002) suggested that knowing one's emotional intelligence served as a predictor of academic success and retention in college.

Drago (2004) analyzed the relationship between the academic success and emotional intelligence for nontraditional college students. Some of the students were better prepared for the university environment because of their cognitive abilities. Thus, by studying the role emotional intelligence played in academic success, predictions of success and retention were possible. Students' abilities to identify, use, and handle their emotions resulted in higher academic achievement. Therefore, incorporating emotional intelligence awareness into academic programs may help students obtain higher academic success and potentially lead to their retention and completion of their degree programs.

Mayer, Salovey, and Caruso (2004) suggested that emotional intelligence increased with age. They documented that as emotional intelligence increased, academic accomplishments increased in number and the ability to communicate inspirational and motivational thoughts was facilitated. On the other hand, as emotional intelligence decreased, oppositional behavior rose. Higher emotional intelligence skills were associated with greater ability and capacity to manage one's own emotions as well as the emotions of other people.

Parker, Duffy, Wood, Bond, and Hogan (2005) investigated the relationship between selected emotional intelligence skills and the academic success of newly enrolled university students who had left high school within two years. The students in their study were students with demonstrated academic success, achieving 80% or better in their course work, and students who were academically unsuccessful, achieving 59% or less in their course work. Parker et al. (2005) established that students who performed better academically also had higher emotional intelligence skills. Differences were noted between the two groups with the greatest difference revealed in stress management. Academically brighter students displayed increased concentration, was an integral factor of stress management. Lesser differences were yielded in adaptability and intrapersonal ability.

Jaeger (2003) analyzed the effects of emotional intelligence training on academic performance. Five groups of graduate-level management students completed initial and post emotional intelligence inventories. Only one of the groups received emotional intelligence instruction during their courses whereas the other four groups received no formal or informal emotional intelligence instruction or discussion. With beginning level of knowledge and teaching effectiveness controlled for, final grades were used to evaluate student academic performance. Jaeger (2003) determined that the group receiving the emotional intelligence curriculum significantly increased their emotional intelligence quotient scores and performed better academically than the four groups of students who did not receive such training. As such, Jaeger (2003) concluded that higher levels of emotional intelligence could be correlated with improved academic performance.

## 9 Summary

In this conceptual analysis, we reviewed the research literature that was relevant to the development of intelligence theories, emotional intelligence, leadership and student achievement, and transformational leadership. Transformational leadership and followers' reactions, and emotional intelligence and academic success were also included. Accordingly, educational leaders have been provided with a strong rationale for the importance

of emotional intelligence in their professional practices.

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